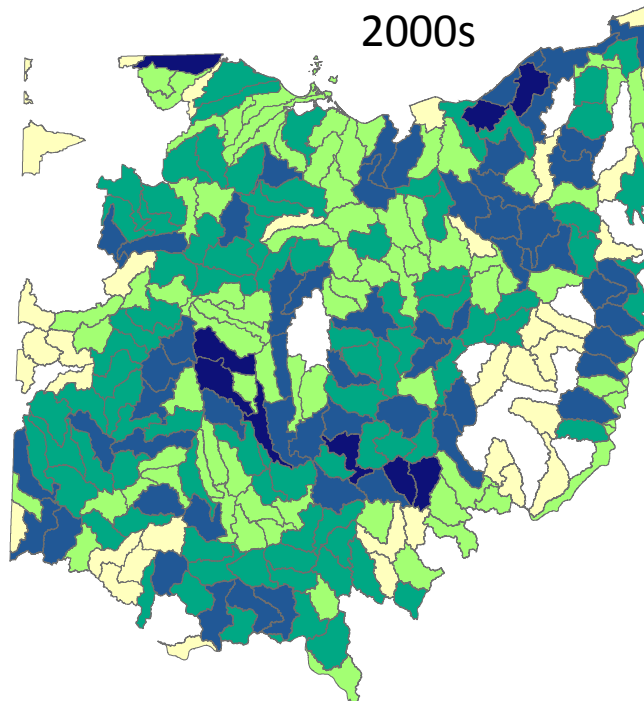
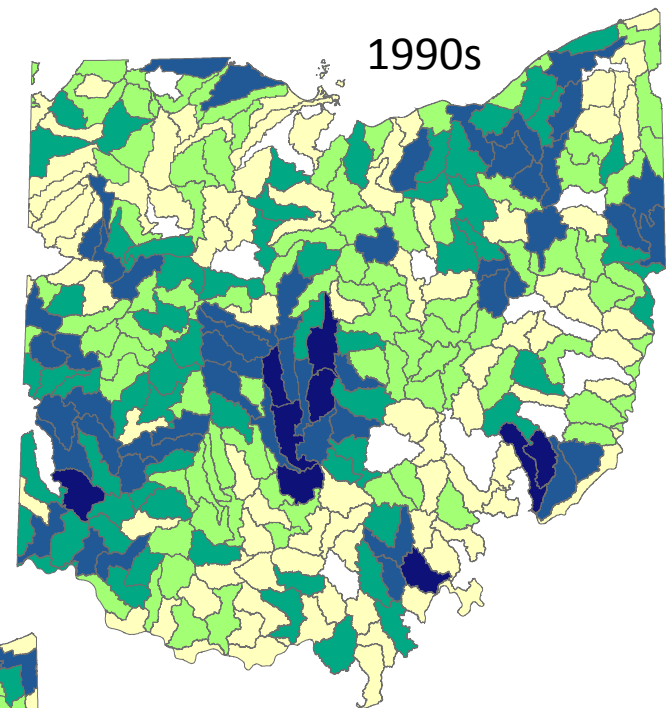
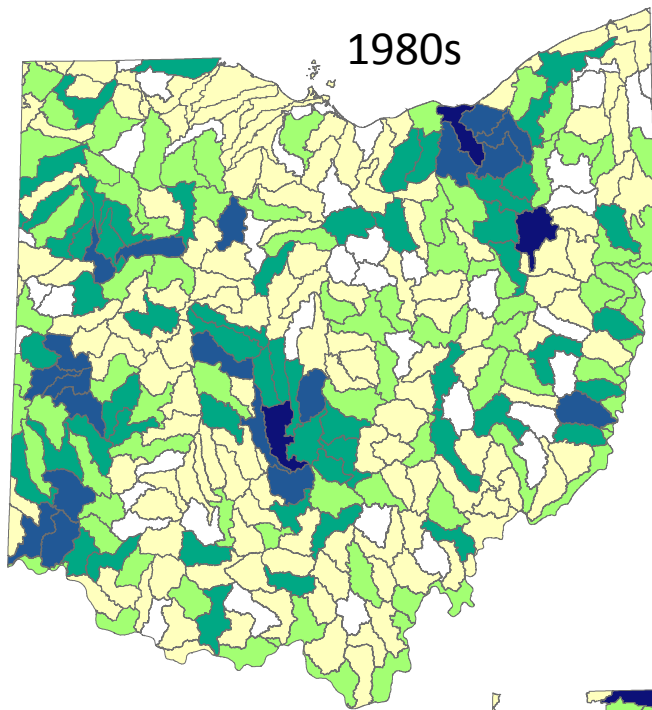


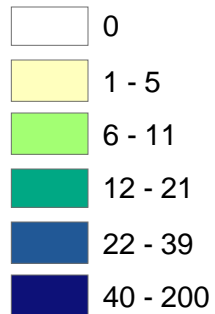
Number of Sites by HUC10 and Decade; Headwaters



Legend

10-Digit Watersheds (NRCS)

Sample Sizes

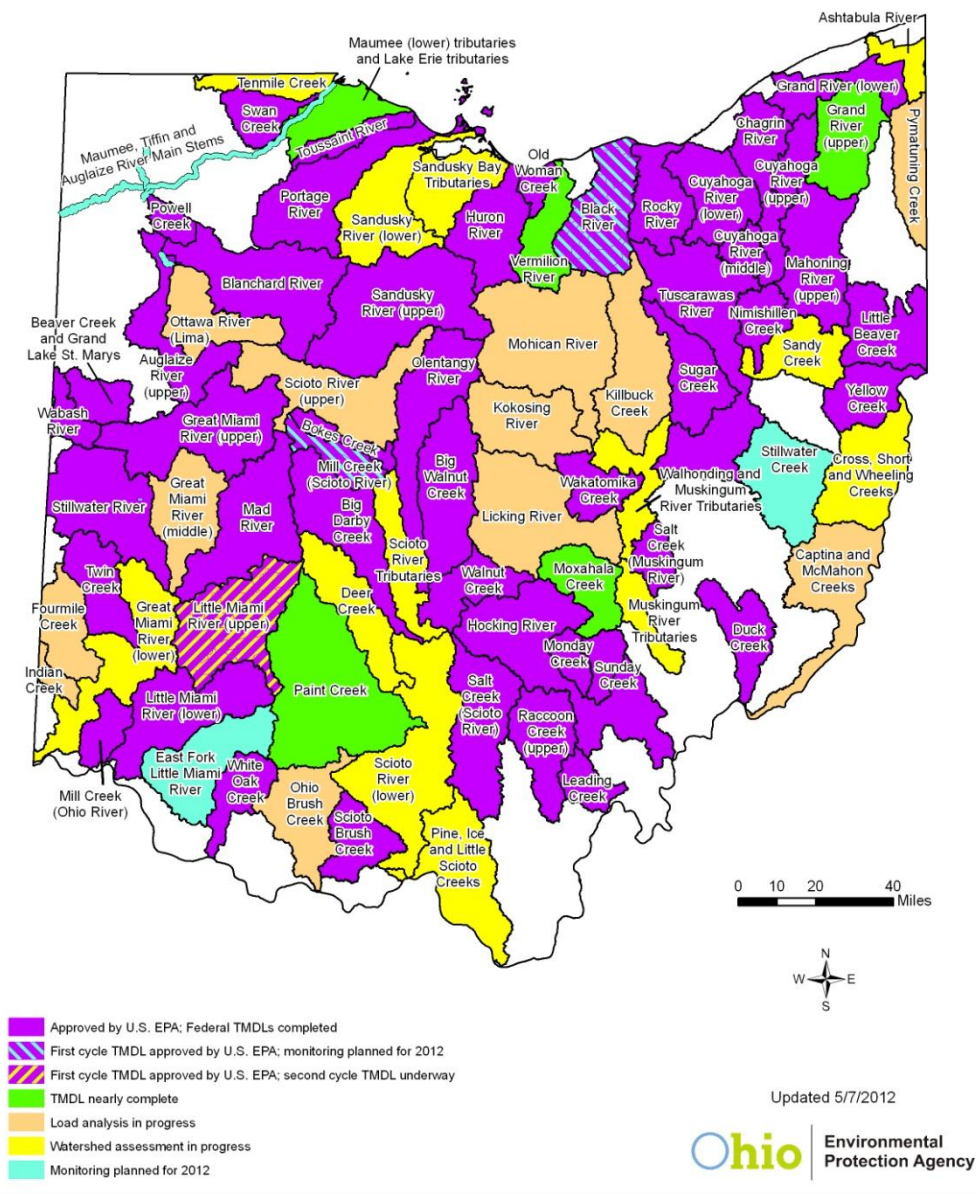


Sample Sizes* for Matched Biology and Chemistry Headwaters

| Decade | 1980s | 1990s | 2000s |
|--------|-------|-------|-------|
| HELP | 40 | 60 | 120 |
| ECBP | 140 | 200 | 400 |

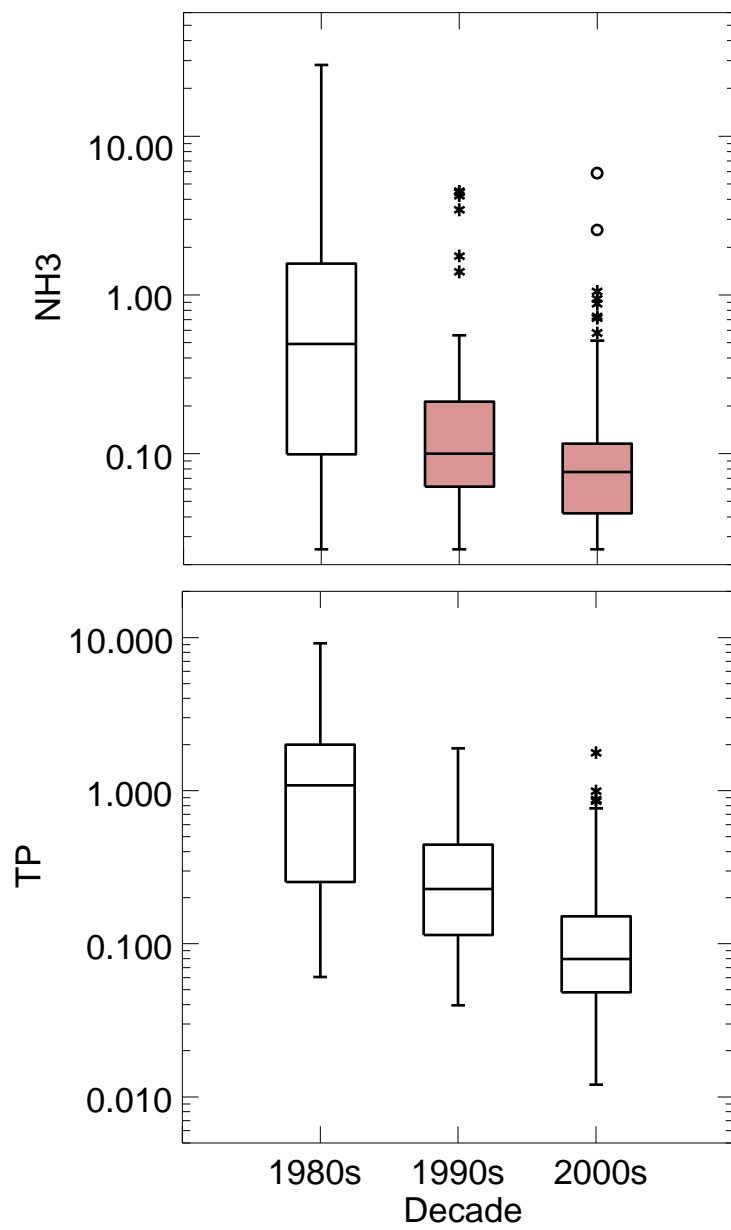
*a rough approximation

Ohio Total Maximum Daily Load Program Progress

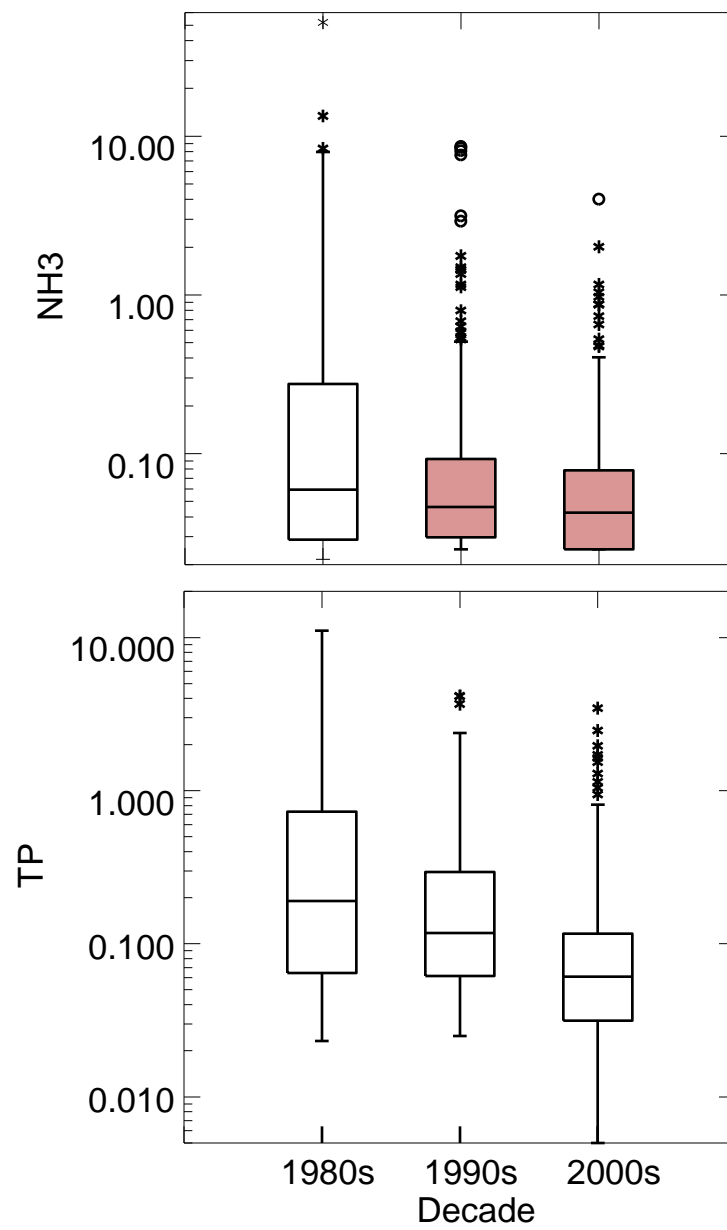


Ammonia and Phosphorus Concentrations by Decade in Headwaters

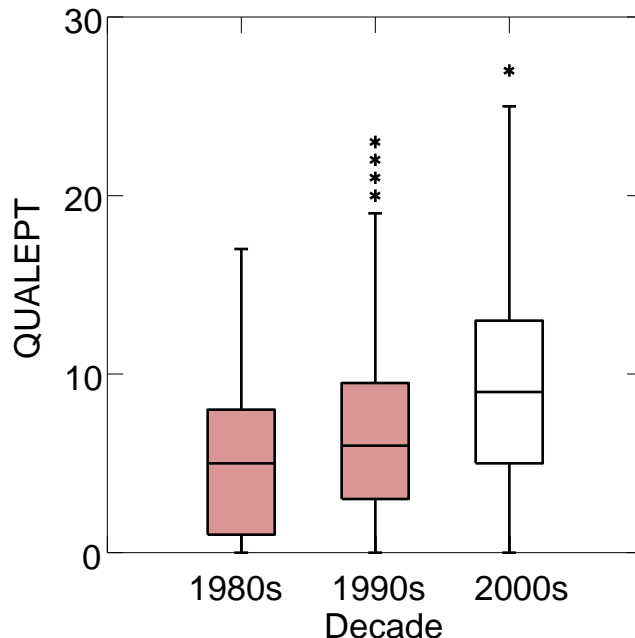
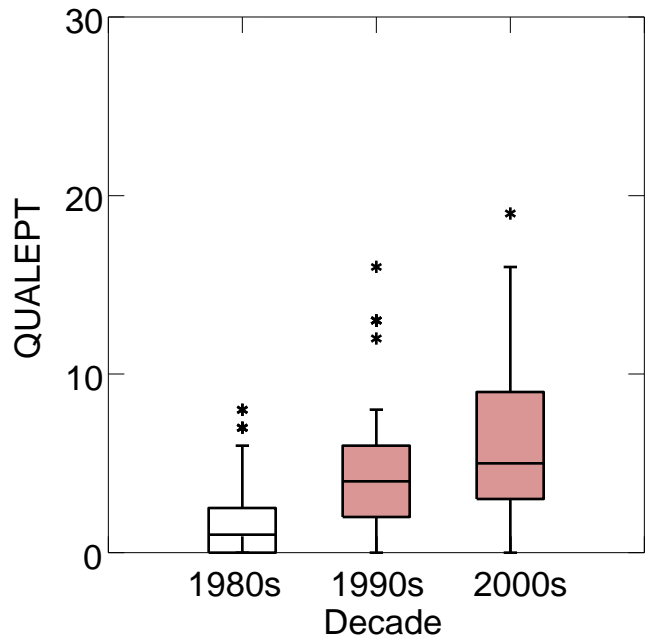
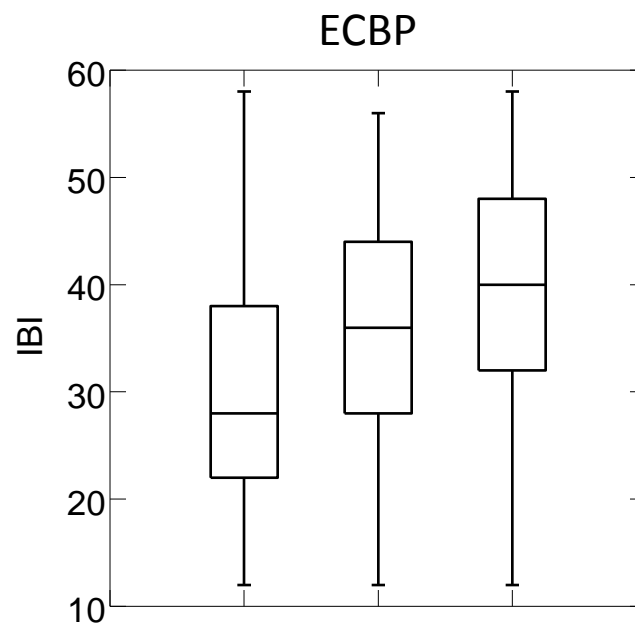
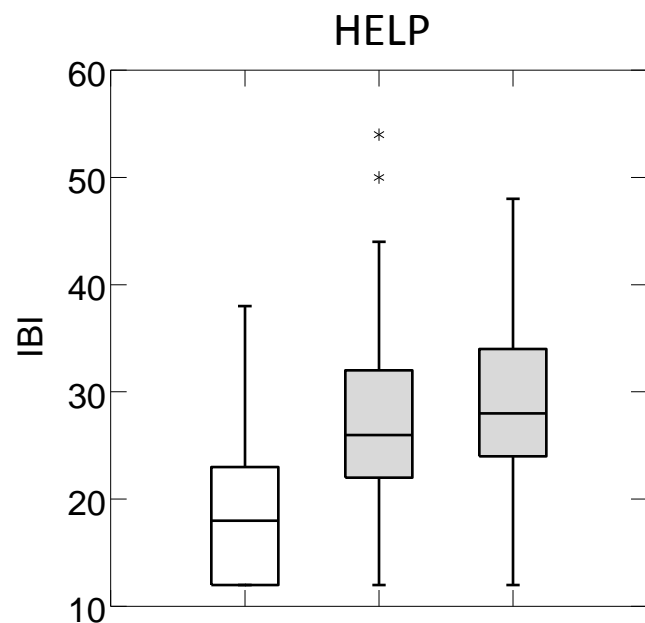
HELP



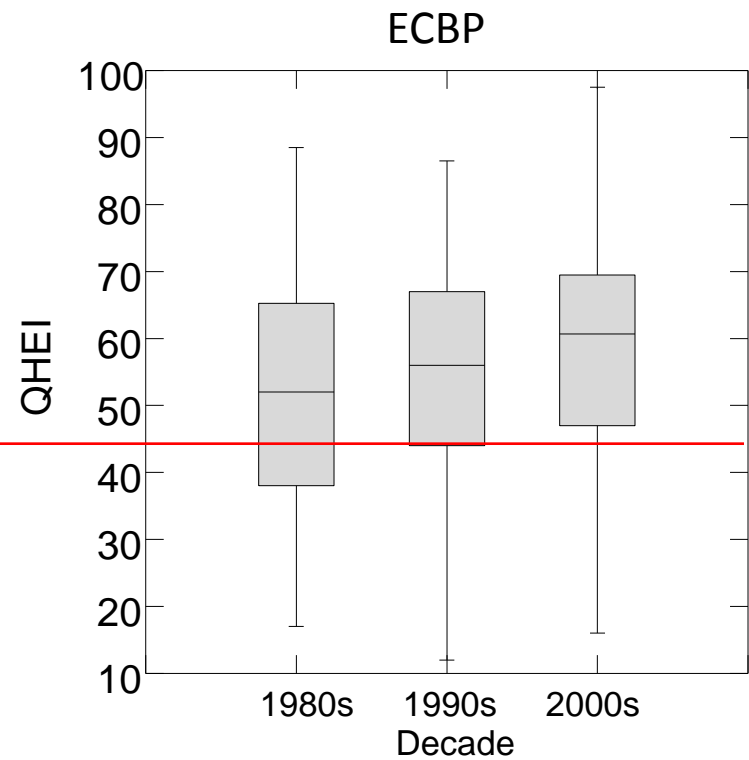
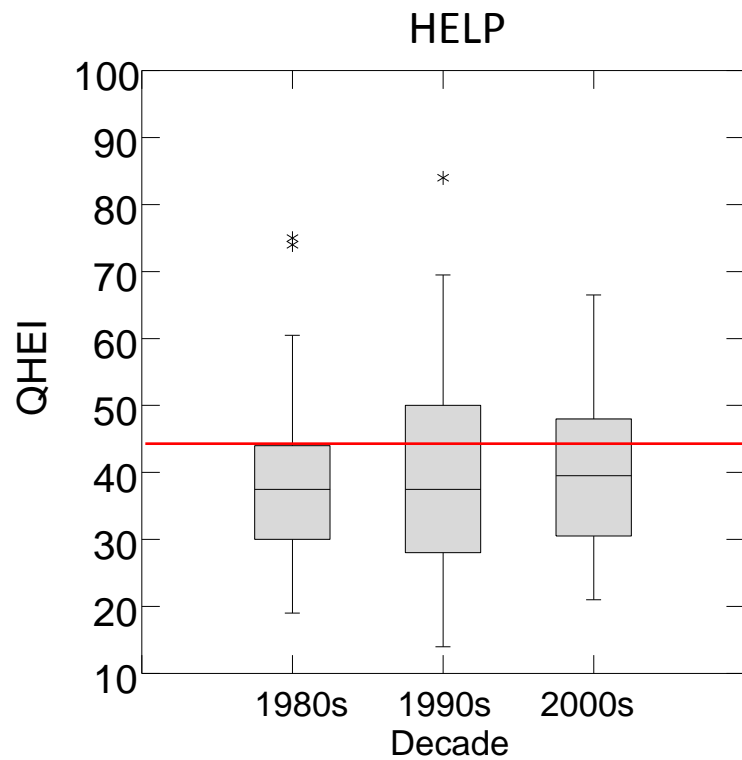
ECBP



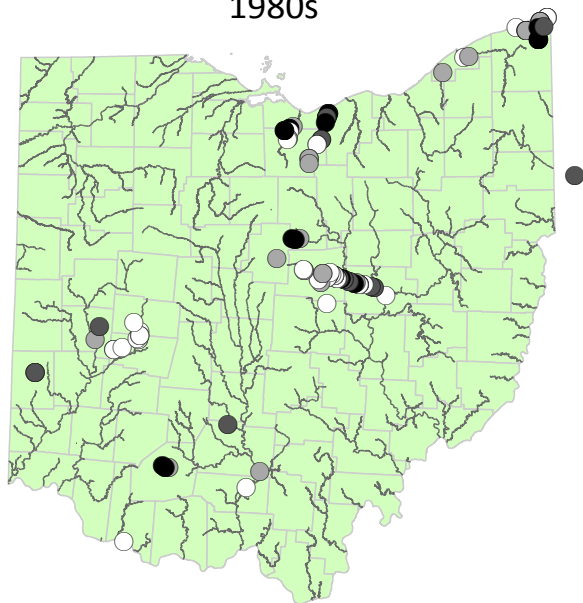
Fish IBI and EPT Richness by Decade in Headwaters



QHEI Scores by Decade in Headwaters

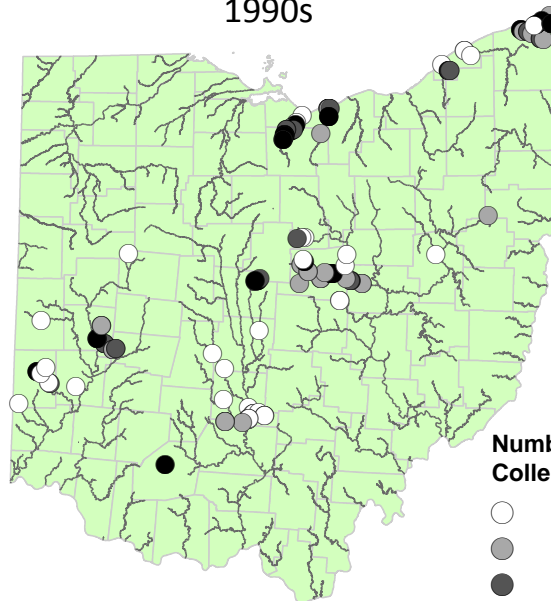


1980s

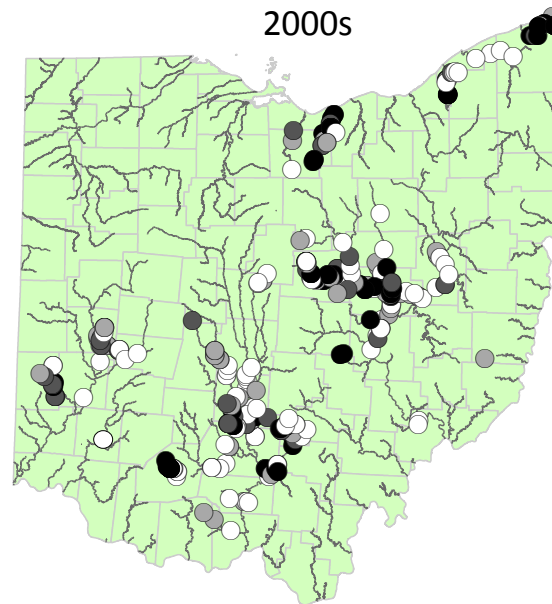


Bigeye Chub

1990s



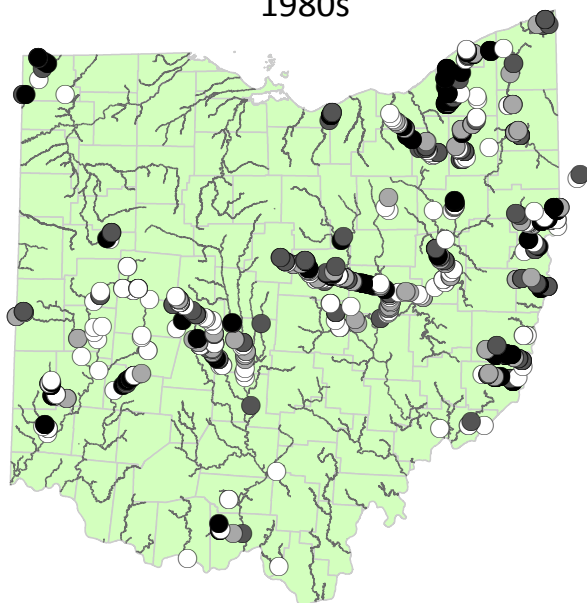
2000s



**Number
Collected**

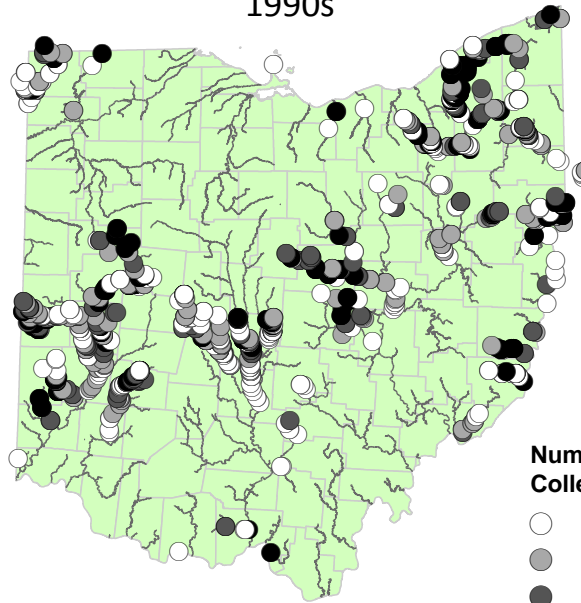
- 1 - 2
- 3 - 6
- 7 - 14
- 15 - 176

1980s

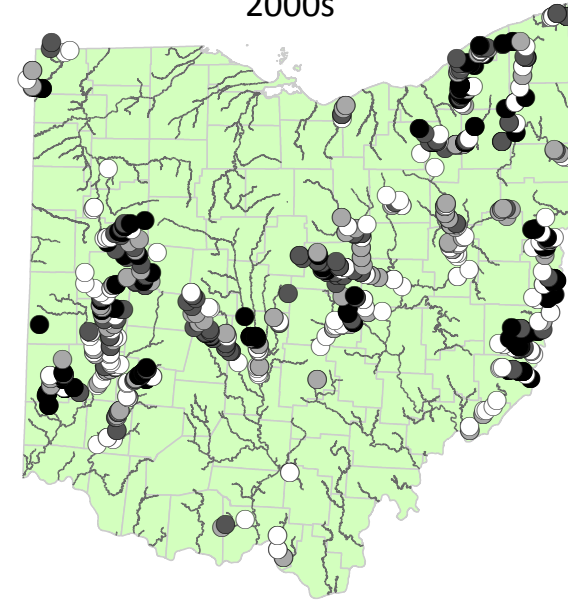


Nocomis Chubs

1990s



2000s



**Number
Collected**

- 1 - 2
- 3 - 7
- 8 - 22
- 23 - 715

Rough Comparison of Monitoring Programs

| Ohio | Indiana | Michigan |
|--|---|--|
| Intensive basin surveys | Random state-wide (5yr) with follow-up | Random + fixed station |
| Fish Macroinvertebrates - LLT Chemistry ~6 samples Habitat (QHEI) | Fish Macroinvertebrates - FLT but recently started LLT Chemistry ~ 1-3 samples Habitat (QHEI) | Macroinvertebrates - FLT Chemistry 3 - many Habitat (RBP?) |